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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/827,808	04/06/2001	Magnus Karlsson	TI-32582	6865

7590

10/27/2004

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EXAMINER

PORTKA, GARY J

ART UNIT	PAPER NUMBER
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2188

DATE MAILED: 10/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/827,808

Applicant(s)

KARLSSON ET AL.

Examiner

Gary J Portka

Art Unit

2188

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-16 is/are allowed.
- 6) ☒ Claim(s) 1,6-9,17,18 and 20-22 is/are rejected.
- 7) ☒ Claim(s) 2-5 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1, 5, and 17 have been amended by Applicant. Claims 1-22 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 7, 9, 17-18, and 20-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Janoska et al., US 6,539,024 B1.
4. As to claim 1, Janoska discloses a storing module for buffering data for a network, comprising cell buffer unit with first queue and second queues storing PDUs received from a network (see col. 1 lines 7-15, Fig. 1 and col. 3 lines 19-27 and 45-53; the first queue may be considered any logical queues within 20, and the second queues logical queues within 21-27), status indicator indicating occupancy status for first and second queues (see col. 2 lines 48-61, where depth pointer indicate occupancy for each logical queue, also col. 8 lines 25-39), and forwarding a PDU from the first queue to a high or low priority second queue in accordance with an appended PDU priority indicator (see Fig. 2, col. 4 lines 32-37, col. 5 lines 14-17; as previously cited the queues may be daisy-chained and therefore the priority applies to forwarding from first to second queues).

Art Unit: 2188

5. As to claim 17, Janoska additionally discloses forwarding to a remote memory when the second queues are occupied (see col. 5 line 60 to col. 6 line 21, shared portion is seen as the remote).
6. As to claims 7 and 22, Janoska discloses ATM cells (see col. 3 lines 15-19).
7. As to claim 9, Janoska discloses real-time for high priority and non-real-time for low priority (see col. 3 lines 57-61).
8. As to claim 18, Janoska discloses the recited fetching from remote to second queue (since as cited regarding claim 17, it utilizes reserved in lieu of shared).
9. As to claim 20, Janoska fetches from high priority prior to low priority queues (see col. 10 lines 6-12, and col. 11 lines 8-52).
10. As to claim 21, Janoska maps the remote PDU memory locations (see col. 5 lines 55-59 where the queues are mapped to the partition).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Janoska et al., US 6,539,024 B1, in view of Miki et al., US 6,453,394 B2.
13. As to claims 6 and 8, Janoska does not disclose that the memory is single or dual port. Both of these types of memory were extremely well known in the art. As cited hereinabove, Janoska is directed to the transfer of data which may be real-time.

Miki teaches that a memory for transfer of real-time data may be implemented as a dual port memory, or as two single port memories (see Miki col. 1 lines 31-39). Miki further goes on to describe a new implementation able to make use of one single port memory. Regardless of whether there are advantages in such an implementation, clearly an artisan would have recognized the advantages of the conventional approach mentioned as well (able to use conventional components which may be cheaper and easier to acquire and integrate). Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to use single or dual port memories in Janoska, because these were known to be useful for and were conventionally used in memories required to do real-time transfer of data.

Allowable Subject Matter

14. Claims 10-16 are allowed.
15. Claims 2-5 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

16. Applicant's arguments filed August 23, 2004 have been fully considered but they are not persuasive. Applicants have argued that In Janoska the queuing elements 20-27 independently receive packets, but there is no claim language that supports any distinction in this regard. Applicants argue that queues 20-27 are not queues configured to store data. Examiner has modified the wording somewhat to indicate that the queues are considered the logical queues of 20-27, although it is still believed the statement is

Art Unit: 2188

not true since a queue may contain multiple queues, and/or logical queues. Applicants argue that the queuing elements and the logical queues are distinct elements, but the queuing elements are properly interpreted as containing all elements (the logical queues) therein. Applicants argue that the queuing elements include the buffer divided into partitions and thus are not individual queues, but a buffer may be considered individual queues if operated as such. Applicants argue that a count of the data cells enqueued is not equal to occupancy status, but Examiner disagrees; a count of the number of cells having data in each queue gives an occupancy status of that queue. Applicants argue that no cell buffer controller is disclosed, but Examiner disagrees, the cell buffer controller is defined entirely by functional description which is met by the reference, and to distinguish over a reference an apparatus claim must distinguish in terms of structure (see MPEP 2114). Applicants argue that data is not transferred to another queue, but this is incorrect. As previously stated the daisy-chained configuration transfers data to successive queues, see the reference incorporated by reference in Janoska US 6,539, 024, B1 at col. 3 line 53, that is, Janoska et al., US Patent 6,487,210 B1, provided herewith, in particular the Abstract. The priority set by the bits at 86 in Fig. 3 of the -024 patent, determines the priority queues of Fig. 2 used at each queuing element. Applicants argue that the shared portion of the partition in Janoska is not remote from the reserved portion, but it is to the extent recited, since "remote" does not necessarily signify a different partition, but rather only situated away from. One portion of the partition may be considered situated away from, and thus remote from, another. Applicants have argued that in Janoska the mapping of a

Art Unit: 2188

partition is not equal to mapping of a remote memory device, but the claim does not state mapping the remote device, only mapping a memory location (a PDU may be in multiple locations). Applicants argue that Janoska teaches away from using FIFO since the structure thereof includes reserved/shared portions, linked lists, etc., however, by definition the logical queues within Janoska are FIFOs and therefore the rationale for combining the teachings as claimed is maintained.

Conclusion

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary J Portka whose telephone number is (571) 272-4211. The examiner can normally be reached on M-F 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on (571) 272-4210. The fax phone

Art Unit: 2188

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Gary J Portka
Primary Examiner
Art Unit 2188

October 25, 2004